Defense Information Systems Agency

A Combat Support Agency

Test & Evaluation of the NR-KPP

Danielle Mackenzie Koester
Chief, Engineering and Policy Branch

July 14, 2010

Purpose

Provide an overview of the policies, processes and procedures for assessing compliance with the Net-Ready Key Performance Parameter

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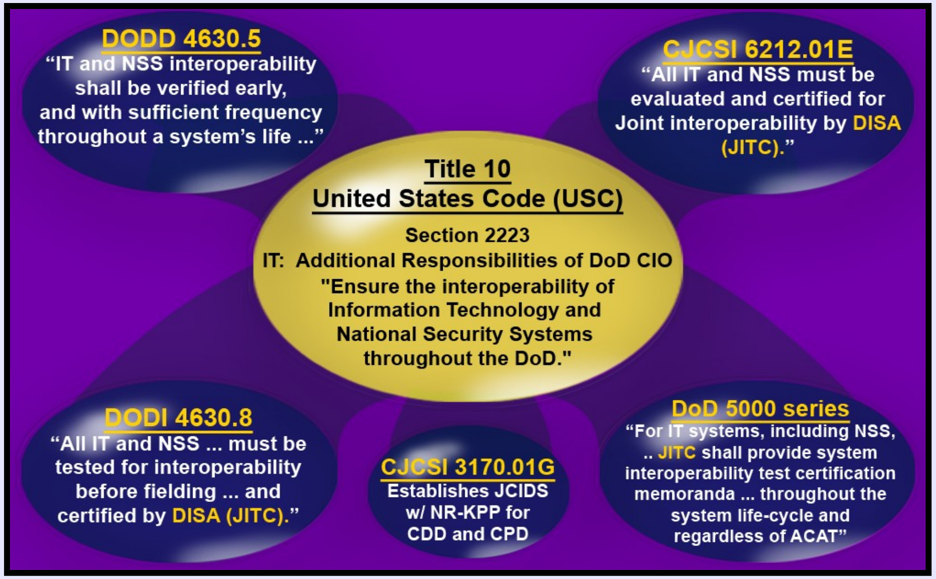
Policy Overview

JS - Interoperability Certification

DOT&E - Operational Test Repor



DODD 4630.5
"IT and NSS interoperability shall be verified early, and with sufficient frequency throughout a system's life ..."

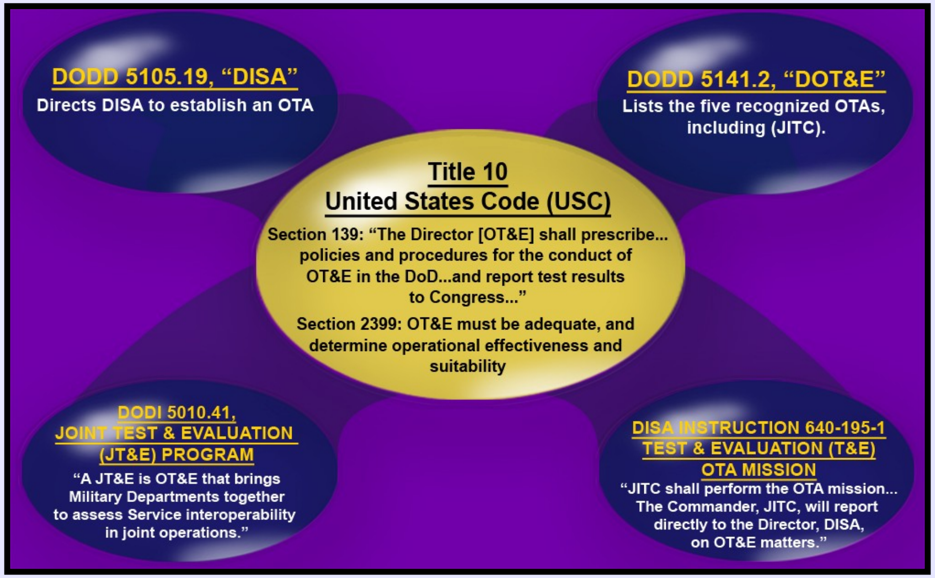
CJCSI 6212.01E
"All IT and NSS must be evaluated and certified for Joint interoperability by DISA (JITC)."

Title 10
United States Code (USC)
Section 2223
IT: Additional Responsibilities of DoD CIO
"Ensure the interoperability of Information Technology and National Security Systems throughout the DoD."

DODI 4630.8
"All IT and NSS ... must be tested for interoperability before fielding ... and certified by DISA (JITC)."

CJCSI 3170.01G
Establishes JCIDS w/ NR-KPP for CDD and CPD

DoD 5000 series
"For IT systems, including NSS, .. JITC shall provide system interoperability test certification memoranda ... throughout the system life-cycle and regardless of ACAT"



DODD 5105.19, "DISA"
Directs DISA to establish an OTA

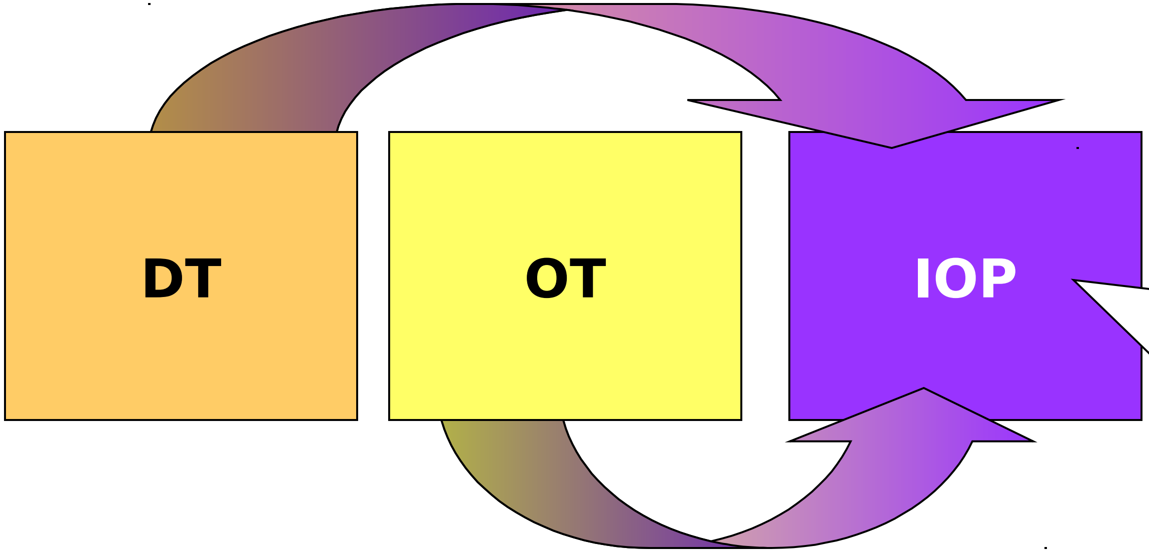
DODD 5141.2, "DOT&E"
Lists the five recognized OTAs, including (JITC).

Title 10
United States Code (USC)
Section 139: "The Director [OT&E] shall prescribe... policies and procedures for the conduct of OT&E in the DoD...and report test results to Congress..."
Section 2399: OT&E must be adequate, and determine operational effectiveness and suitability

DODI 5010.41, JOINT TEST & EVALUATION (JT&E) PROGRAM
"A JT&E is OT&E that brings Military Departments together to assess Service interoperability in joint operations."

DISA INSTRUCTION 640-195-1 TEST & EVALUATION (T&E) OTA MISSION
"JITC shall perform the OTA mission... The Commander, JITC, will report directly to the Director, DISA, on OT&E matters."

Joint Interoperability Test Certification Overview



NR-KPP Elements:

Compliant Solution Architectures

Net-Centric Data and Services Strategy

GIG Technical Guidance

Information Assurance

Supportability

- **The NR-KPP elements define the areas JITC evaluates for interoperability certification**
- **JITC uses data collected during DT, OT, demonstrations, exercises, or other reliable sources for interoperability evaluations**

Success = Minimizing separate interoperability testing by leveraging DT/OT

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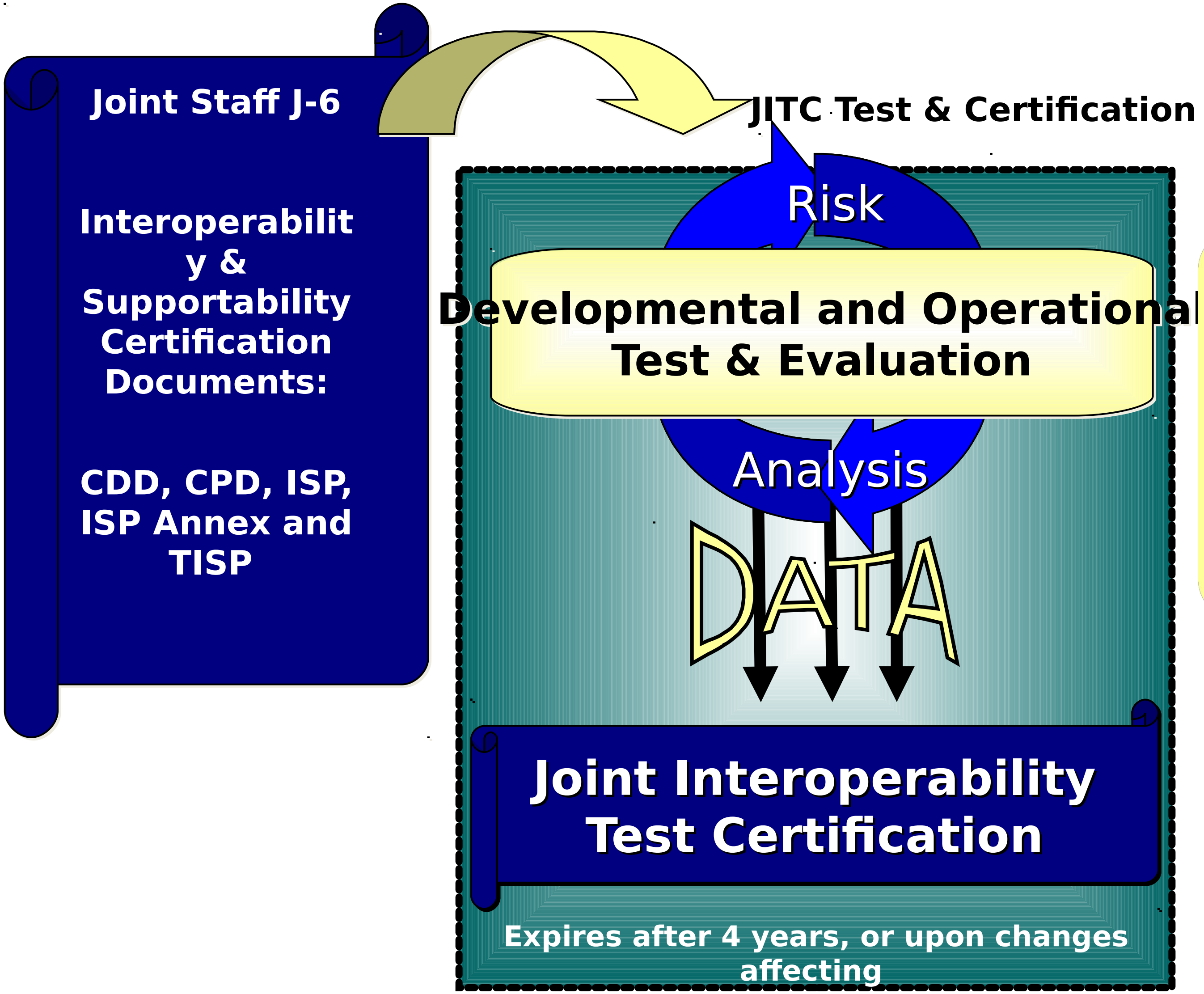
NR-KPP T&E Process



Joint Staff J-6

Interoperability & Supportability Certification Documents:

CDD, CPD, ISP, ISP Annex and TISP

JITC Test & Certification

Developmental and Operational Test & Evaluation

Joint Interoperability Test Certification

Expires after 4 years, or upon changes affecting

NOTE: Interoperability changes require reentering process at appropriate point:

- ✓ Requirements updates
- ✓ J-6 I&S Certification
- ✓ JITC Test & Certification

NR-KPP Statement

Testable?

KPP	Threshold	Objectiv
Net-Ready: The capability, system, and/or service must support Net-Centric military operations. The capability, system, and/or service must be able to enter and be managed in the network, and exchange data in a secure manner to enhance mission effectiveness. The capability, system, and/or service must continuously provide survivable, interoperable, secure, and operationally effective information exchanges to enable a Net-Centric military capability.	The capability, system, and/or service must fully support execution of joint critical operational activities and information exchanges identified in the DoD Enterprise Architecture and solution architectures based on integrated DODAF content, and must satisfy the technical requirements for transition to Net-Centric military operations to include: 1) Solution architecture products compliant with DoD Enterprise Architecture based on integrated DODAF content, including specified operationally effective information exchanges 2) Compliant with Net-Centric Data Strategy and Net-Centric Services Strategy, and the principles and rules identified in the DoD Information Enterprise Architecture (DoD IEA), excepting tactical and non-IP communications 3) Compliant with GIG Technical Guidance to include IT Standards identified in the TV-1 and implementation guidance of GIG Enterprise Service Profiles (GESPs) necessary to meet all operational requirements specified in the DoD Enterprise Architecture and solution architecture views 4) Information assurance requirements including availability, integrity, authentication, confidentiality, and non-repudiation, and issuance of an Interim Authorization to Operate (IATO) or	The capability, syste must fully support ex operational activities exchanges iden Architecture and soluti based on integrated D must satisfy the tech ica for transition to Net-Cent m y operations to include: 1) Solution architecture produ s compliant with DoD Enterprise Architecture based on integrated DODAF content, including specified operationally effective information exchanges 2) Compliant with Net-Centric Data Strategy and Net-Centric Services Strategy, and the principles and rules identified in the DoD Information Enterprise Architecture (DoD IEA), excepting tactical and non-IP communications 3) Compliant with GIG Technical Guidance to include IT Standards identified in the TV-1 and implementation guidance of GIG Enterprise Service Profiles (GESPs) necessary to meet all operational requirements specified in the DoD Enterprise Architecture and solution architecture views 4) Information assurance requirements including availability, integrity, authentication, confidentiality, and non-repudiation, and issuance of an Interim Authorization to Operate (IATO) or

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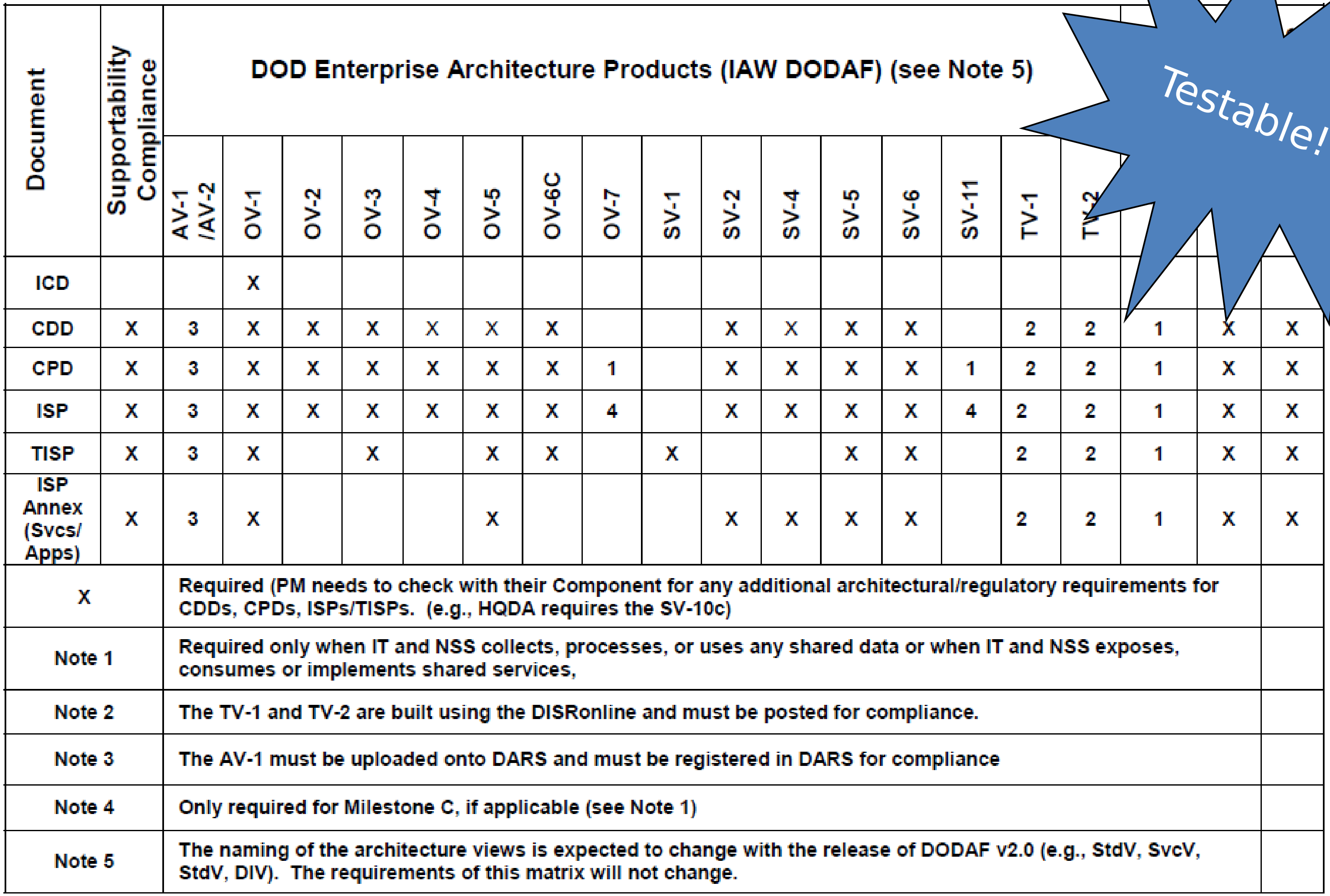
NR-KPP Requirements Source



Document	Supportability Compliance	DOD Enterprise Architecture Products (IAW DODAF) (see Note 5)																		
		AV-1 /AV-2	OV-1	OV-2	OV-3	OV-4	OV-5	OV-6C	OV-7	SV-1	SV-2	SV-4	SV-5	SV-6	SV-11	TV-1	TV-2			
ICD			X																	
CDD	X	3	X	X	X	X	X	X			X	X	X	X		2	2	1	X	X
CPD	X	3	X	X	X	X	X	X	1		X	X	X	X	1	2	2	1	X	X
ISP	X	3	X	X	X	X	X	X	4		X	X	X	X	4	2	2	1	X	X
TISP	X	3	X		X		X	X		X			X	X		2	2	1	X	X
ISP Annex (Svcs/ Apps)	X	3	X				X				X	X	X	X		2	2	1	X	X

X	Required (PM needs to check with their Component for any additional architectural/regulatory requirements for CDDs, CPDs, ISPs/TISPs. (e.g., HQDA requires the SV-10c)
Note 1	Required only when IT and NSS collects, processes, or uses any shared data or when IT and NSS exposes, consumes or implements shared services,
Note 2	The TV-1 and TV-2 are built using the DISRonline and must be posted for compliance.
Note 3	The AV-1 must be uploaded onto DARS and must be registered in DARS for compliance
Note 4	Only required for Milestone C, if applicable (see Note 1)
Note 5	The naming of the architecture views is expected to change with the release of DODAF v2.0 (e.g., StdV, SvcV, StdV, DIV). The requirements of this matrix will not change.

Testable!

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Mapping NR-KPP to Operational Impact

(notional example)

Capability	Operational Activity	System Function	Interface	Data & Services	Standards
JMT	OV-5	SV-4	SV-6	EVTS	TV-1
Joint C2	Understand Blue Force Resource States	Blue Force Location Auto Track Feed	(T) FBCB2 EPLRS (T) BFT SATCOM	Service: Blue Force Ground Data – Current Service: Blue Force Ground Data – Projected Data: JBFSA Schema/BFT COI	WSDL UDDI XML WS-I Basic Profile SOAP
		Blue Force Location ISR Sensors	(T) BFT SATCOM (O) DCGS-A		

Compliant Solution Architectures
(Operationally Effective Information Exchanges)

Net-Centric Data & Services

GIG Technical Guidance

Information Assurance & Supportability

Operationally Effective Information Exchanges

NR-KPP Statement (Threshold)

…to include solution architecture products compliant with DoD Enterprise Architecture based on integrated DODAF content, including specified operationally effective information exchanges”

CJCSI 6212.01E

Operationally Effective Information Exchanges

- Requirements Analysis
  - OV-5/6c (and other viewpoints as needed) are used to determine mission requirements, functions, and activities
  - OV-3/SV-6 are used to determine interoperability criteria, e.g.
    - Timeliness
    - Accuracy
    - Completeness

- Test Planning and Execution
  - Leverages all program lifecycle testing for data collection
  - Interoperability testing of information exchanges must be on production representative system in an operationally realistic environment
    - Network
    - Loading conditions

Operationally Effective Information Exchanges

Reporting

- **Threshold: Meets all *joint critical* information exchange requirements contained in the J-6 certified NR-KPP**
- **Objective: Meets all information exchange requirements contained in the J-6 certified NR-KPP**

Data & Services Strategies

NR-KPP Statement (Threshold)

…to include compliant with Net-Centric Data Strategy and Net-Centric Services Strategy, and the principles and rules identified in the DoD Information Enterprise Architecture (DoD IEA), excepting tactical and non-IP communications”

CJCSI 6212.01E

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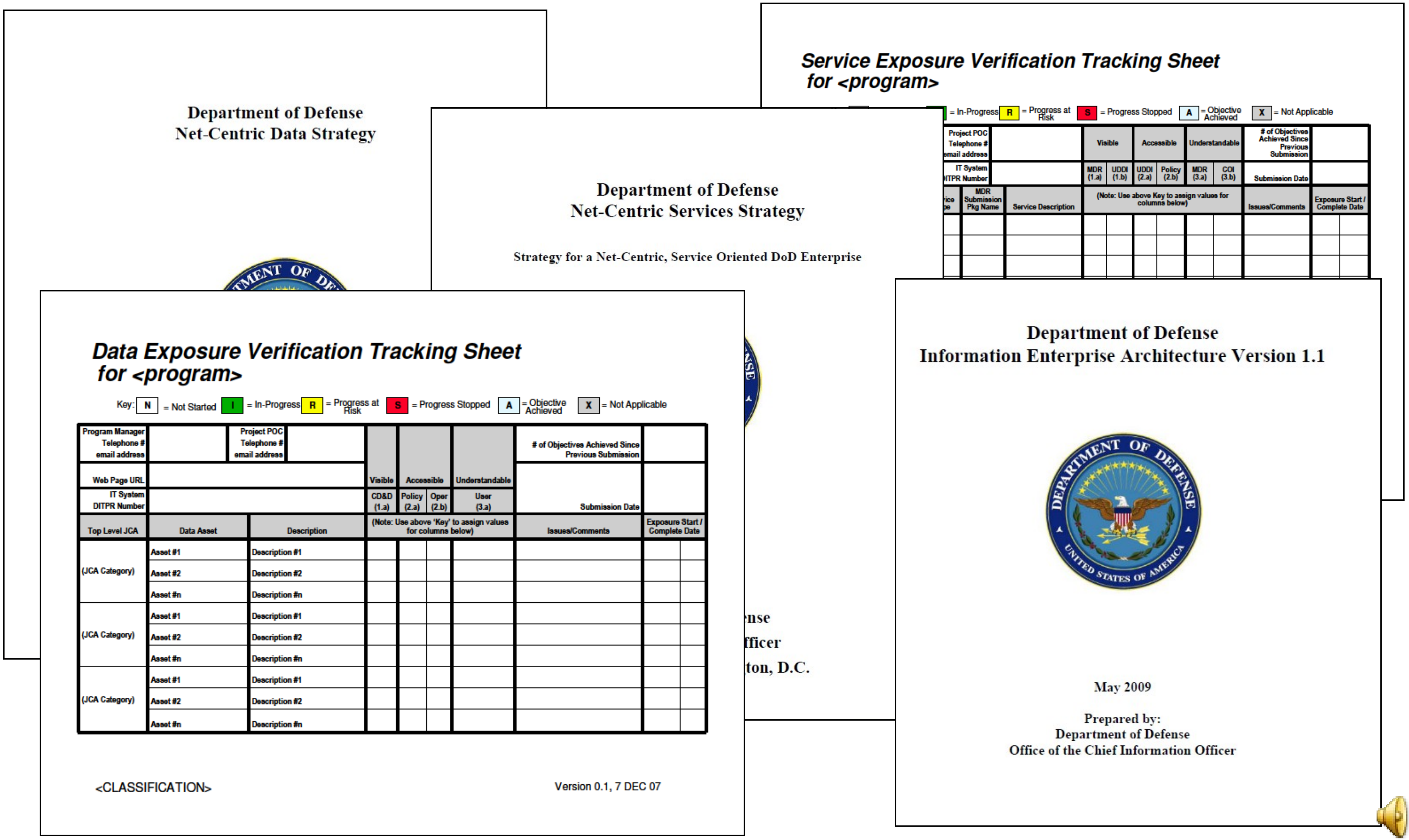
Data & Services Strategies

Requirements Sources



Department of Defense
Net-Centric Data Strategy

Department of Defense
Net-Centric Services Strategy

Strategy for a Net-Centric, Service Oriented DoD Enterprise

nse
fficer
ton, D.C.

Service Exposure Verification Tracking Sheet for <program>

= In-Progress R = Progress at Risk S = Progress Stopped A = Objective Achieved X = Not Applicable

Project POC Telephone # email address			Visible		Accessible		Understandable		# of Objectives Achieved Since Previous Submission	
IT System DITPR Number			MDR (1.a)	UDDI (1.b)	UDDI (2.a)	Policy (2.b)	MDR (3.a)	COI (3.b)	Submission Date	
ice pe	MDR Submission Pkg Name	Service Description	(Note: Use above Key to assign values for columns below)						Issues/Comments	Exposure Start / Complete Date

Department of Defense
Information Enterprise Architecture Version 1.1

May 2009

Prepared by:
Department of Defense
Office of the Chief Information Officer

Data Exposure Verification Tracking Sheet for <program>

Key: N = Not Started I = In-Progress R = Progress at Risk S = Progress Stopped A = Objective Achieved X = Not Applicable

Program Manager Telephone # email address		Project POC Telephone # email address						# of Objectives Achieved Since Previous Submission	
Web Page URL			Visible	Accessible		Understandable			
IT System DITPR Number			CD&D (1.a)	Policy (2.a)	Oper (2.b)	User (3.a)	Submission Date		
Top Level JCA	Data Asset	Description	(Note: Use above 'Key' to assign values for columns below)				Issues/Comments	Exposure Start / Complete Date	
(JCA Category)	Asset #1	Description #1							
	Asset #2	Description #2							
	Asset #n	Description #n							
(JCA Category)	Asset #1	Description #1							
	Asset #2	Description #2							
	Asset #n	Description #n							
(JCA Category)	Asset #1	Description #1							
	Asset #2	Description #2							
	Asset #n	Description #n							

<CLASSIFICATION>

Version 0.1, 7 DEC 07

Data & Services Strategies

Requirements

Data Strategy Compliance

Visible
Accessible
Data Management
Understandable
Trusted
Interoperable
Responsive to User's Needs

Services Strategy Compliance

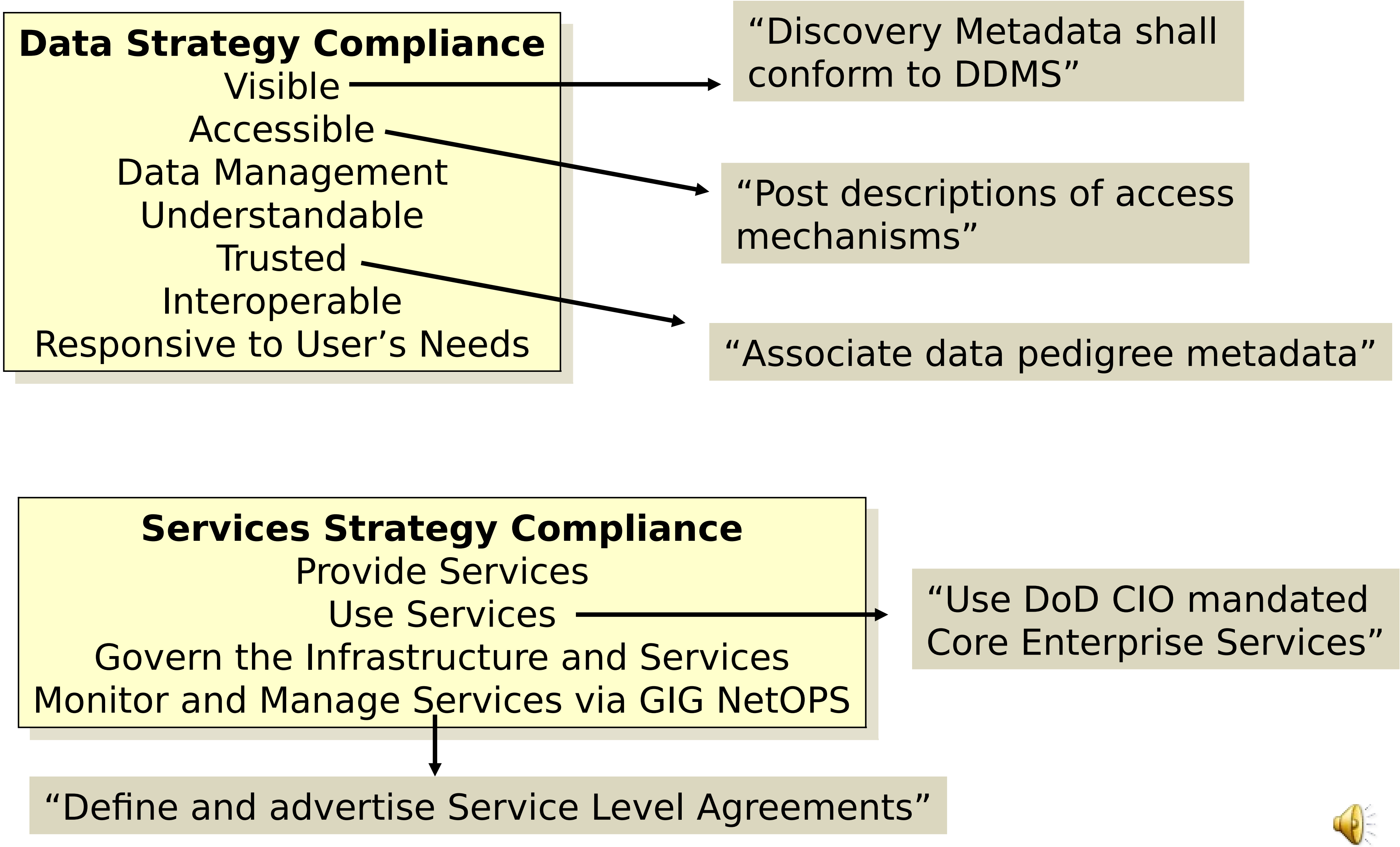
Provide Services
Use Services
Govern the Infrastructure and Services
Monitor and Manage Services via GIG NetOPS

DoD Information Enterprise Architecture Compliance

Data and Services Deployment
Secured Availability
Shared Infrastructure Environment
Computing Infrastructure Readiness
NetOPS Agility

Data & Services Strategies

Requirements



Data Strategy Compliance

Visible → "Discovery Metadata shall conform to DDMS"

Accessible → "Post descriptions of access mechanisms"

Data Management

Understandable

Trusted → "Associate data pedigree metadata"

Interoperable

Responsive to User's Needs

Services Strategy Compliance

Provide Services

Use Services → "Use DoD CIO mandated Core Enterprise Services"

Govern the Infrastructure and Services

Monitor and Manage Services via GIG NetOPS → "Define and advertise Service Level Agreements"

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Data & Services Strategies

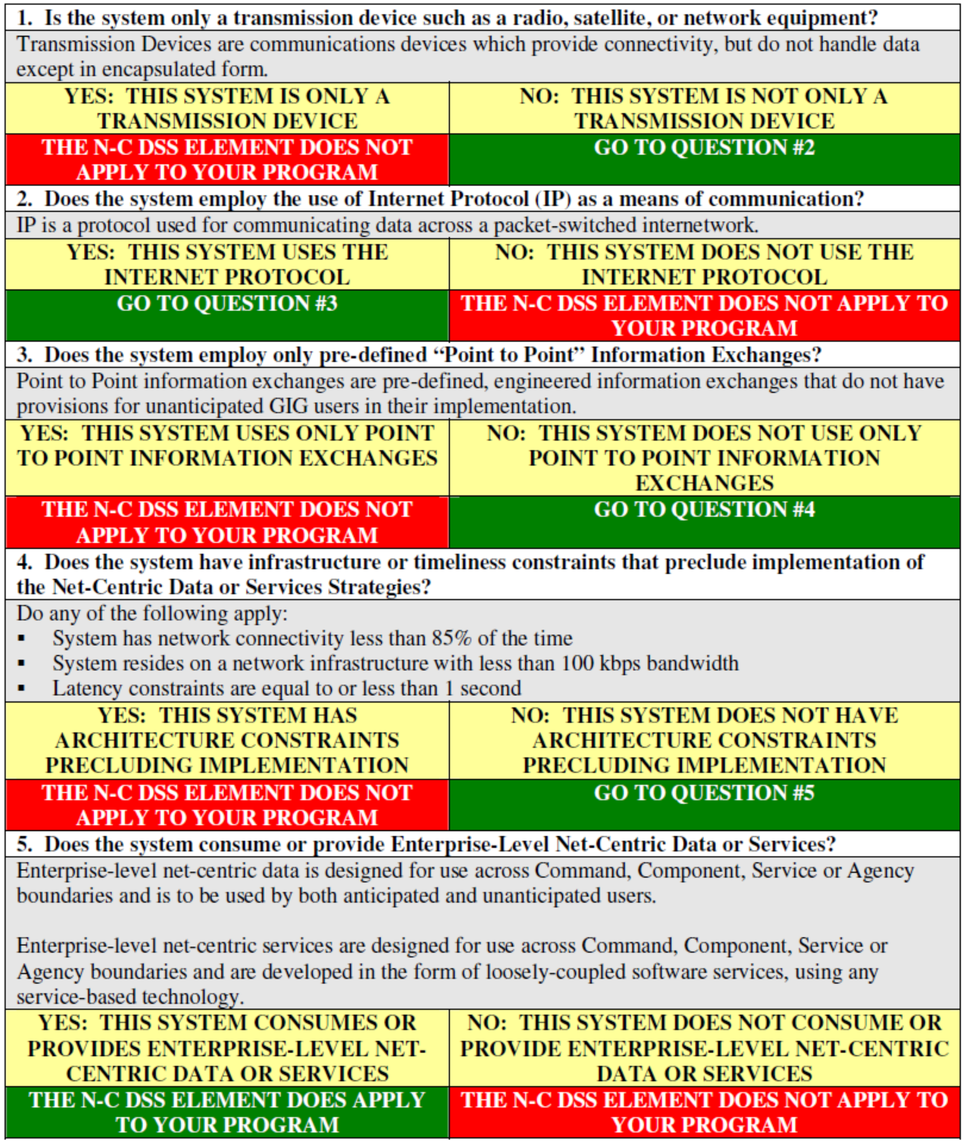
Requirements

Net-Centric Data Requirement
Data is Visible Post discovery metadata in an Enterprise Catalog: Department of Defense (DoD) Discovery Metadata Specification (DDMS)- conformant discovery metadata is posted in the Net-Centric Enterprise Services (NCES) Enterprise Catalog or other compatible/federated enterprise catalog that is visible to the Enterprise. Use appropriate keywords for discovery: Discovery keywords should reflect common user terms, be appropriate for mission area or data type, be understandable, and conform with MDR requirements that map back to COI identified mission data.
Data is Accessible Post data to shared space: Data asset is available in a shared space, i.e., a space that is accessible to multiple end users. Provide access policy: If data is not accessible to all users, a written policy on how to gain access is available and accurate. Provide serving (access) mechanism: Shared space provides serving (access) mechanisms for the data. I.e., a service provides users with access to the data. Publish active link to data asset: The Enterprise Catalog DoD Discovery Metadata Specification (DDMS) entry contains an active link (e.g., Uniform Resource Identifier (URI)) to the data asset.
Data is Understandable Publish semantic and structural metadata - Semantic and structural metadata are published in the Enterprise Catalog. Register data artifacts in DoD MDR - XML schema definitions (XSD), eXtensible Markup Language (XML) instances, data models (such as entity relationship diagrams) and other appropriate artifacts are registered in the DoD Metadata Registry (MDR).
Data is Interoperable Base vocabularies on Universal Core (UCore) - Semantic vocabularies reuse elements of the Universal Core (Ucore) standard. Comply with COI data-sharing agreements - Semantic and structural metadata conform to interoperability agreements promoted through communities, e.g., Community of Interest (COI). Conform to DDMS - All metadata, including record-level database tagging and in-line document tagging, complies with DDMS.
Data is Trusted Provide information assurance and security metadata - All metadata, including record-level database tagging and in-line document tagging, includes data pedigree and security metadata, as well as an authoritative source for the data (when appropriate).

Net-Centric Services Requirement
Services are Visible Publish a description of the service or access mechanism - Descriptions (metadata) for the service or access mechanism are published in an enterprise service registry, e.g., the NCES Service Registry. Comply with enterprise-specified minimum service discovery requirements - The data access mechanism complies with enterprise-specified minimum service discovery requirements, e.g., a Universal Description, Discovery and Integration (UDDI) description to enable federated discovery.
Services are Accessible Provide an active link to the service in the enterprise catalog - Active link (e.g., Uniform Resource Identifier (URI)) to the specified service is included in the enterprise catalog metadata entry (i.e., metacard) for the specified service. Provide an active link to the service in the NCES Service Registry - URIs as the operational end points for services shall be registered in the NCES Service Registry by referencing the WSDL (that is in the MDR).
Services are Understandable Publish a description of the service or access mechanism to the NCES Service Registry - Metadata for the service or access mechanism are published in the NCES Service Registry. Publish service artifacts to DoD MDR - Web Service Description Language (WSDL) documents, and other appropriate artifacts are registered in the DoD Metadata Registry (MDR). Provide service specification or Service Level Agreement (SLA) - A service specification or Service Level Agreement (SLA) exists for services and data access mechanisms.
Services are Trusted Operate services in accordance with SLA - The service meets the performance standards in the SLA Include security mechanisms or restrictions in the service specification - The service specification describes security mechanisms or restrictions that apply to the service Enable continuity of operations and disaster recovery for services - The service has a defined and functional Continuity of Operations Plan Provide NetOps Data (NetOps Agility) - Services and data access mechanisms provide operational states, performance, availability, and security data/information to NetOps management services, e.g., Enterprise Management, Content Management, and Network Defense services
Use of Core Enterprise Services (CES) - Core Enterprise Services (CES) are used in accordance with DoD CIO mandates

Data & Services Strategies

Does it apply?



1. Is the system only a transmission device such as a radio, satellite, or network equipment?	
Transmission Devices are communications devices which provide connectivity, but do not handle data except in encapsulated form.	
YES: THIS SYSTEM IS ONLY A TRANSMISSION DEVICE	**NO: THIS SYSTEM IS NOT ONLY A TRANSMISSION DEVICE**
THE N-C DSS ELEMENT DOES NOT APPLY TO YOUR PROGRAM	**GO TO QUESTION #2**
2. Does the system employ the use of Internet Protocol (IP) as a means of communication?	
IP is a protocol used for communicating data across a packet-switched internetwork.	
YES: THIS SYSTEM USES THE INTERNET PROTOCOL	**NO: THIS SYSTEM DOES NOT USE THE INTERNET PROTOCOL**
GO TO QUESTION #3	**THE N-C DSS ELEMENT DOES NOT APPLY TO YOUR PROGRAM**
3. Does the system employ only pre-defined "Point to Point" Information Exchanges?	
Point to Point information exchanges are pre-defined, engineered information exchanges that do not have provisions for unanticipated GIG users in their implementation.	
YES: THIS SYSTEM USES ONLY POINT TO POINT INFORMATION EXCHANGES	**NO: THIS SYSTEM DOES NOT USE ONLY POINT TO POINT INFORMATION EXCHANGES**
THE N-C DSS ELEMENT DOES NOT APPLY TO YOUR PROGRAM	**GO TO QUESTION #4**
4. Does the system have infrastructure or timeliness constraints that preclude implementation of the Net-Centric Data or Services Strategies?	
Do any of the following apply: ▪ System has network connectivity less than 85% of the time ▪ System resides on a network infrastructure with less than 100 kbps bandwidth ▪ Latency constraints are equal to or less than 1 second	
YES: THIS SYSTEM HAS ARCHITECTURE CONSTRAINTS PRECLUDING IMPLEMENTATION	**NO: THIS SYSTEM DOES NOT HAVE ARCHITECTURE CONSTRAINTS PRECLUDING IMPLEMENTATION**
THE N-C DSS ELEMENT DOES NOT APPLY TO YOUR PROGRAM	**GO TO QUESTION #5**
5. Does the system consume or provide Enterprise-Level Net-Centric Data or Services?	
Enterprise-level net-centric data is designed for use across Command, Component, Service or Agency boundaries and is to be used by both anticipated and unanticipated users. Enterprise-level net-centric services are designed for use across Command, Component, Service or Agency boundaries and are developed in the form of loosely-coupled software services, using any service-based technology.	
YES: THIS SYSTEM CONSUMES OR PROVIDES ENTERPRISE-LEVEL NET-CENTRIC DATA OR SERVICES	**NO: THIS SYSTEM DOES NOT CONSUME OR PROVIDE ENTERPRISE-LEVEL NET-CENTRIC DATA OR SERVICES**
THE N-C DSS ELEMENT DOES APPLY TO YOUR PROGRAM	**THE N-C DSS ELEMENT DOES NOT APPLY TO YOUR PROGRAM**

Data & Services Strategies

- **Requirements Analysis**
  - **Determine applicability of net-centric requirements**
  - **Determine enterprise-level shared data and services as defined in JS-certified requirements documents: Exposure Verification Tracking Sheet (EVTS) ("Blue Sheets")**

- **Risk Assessment – Joint Critical vs. Contributory**

- **Test Planning and Execution**
  - **Conduct initial static analysis (e.g., registration of assets)**
  - **Execute conformance/compliance testing (e.g.**

Data & Services Strategies

Reporting

- Threshold: Meets all *joint critical* net-centric requirements contained in the J-6 certified NR-KPP
- Objective: Meets all *net-centric* requirements contained in the J-6 certified NR-KPP

GIG Technical Guidance

NR-KPP Statement (Threshold)

…compliant with GIG Technical Guidance to include IT Standards identified in the TV-1 and implementation guidance of GIG Enterprise Service Profiles (GESPs) necessary to meet all operational requirements specified in the DoD Enterprise Architecture and solution architecture views”

CJCSI 6212.01E

GIG Technical Guidance

Requirements Sources

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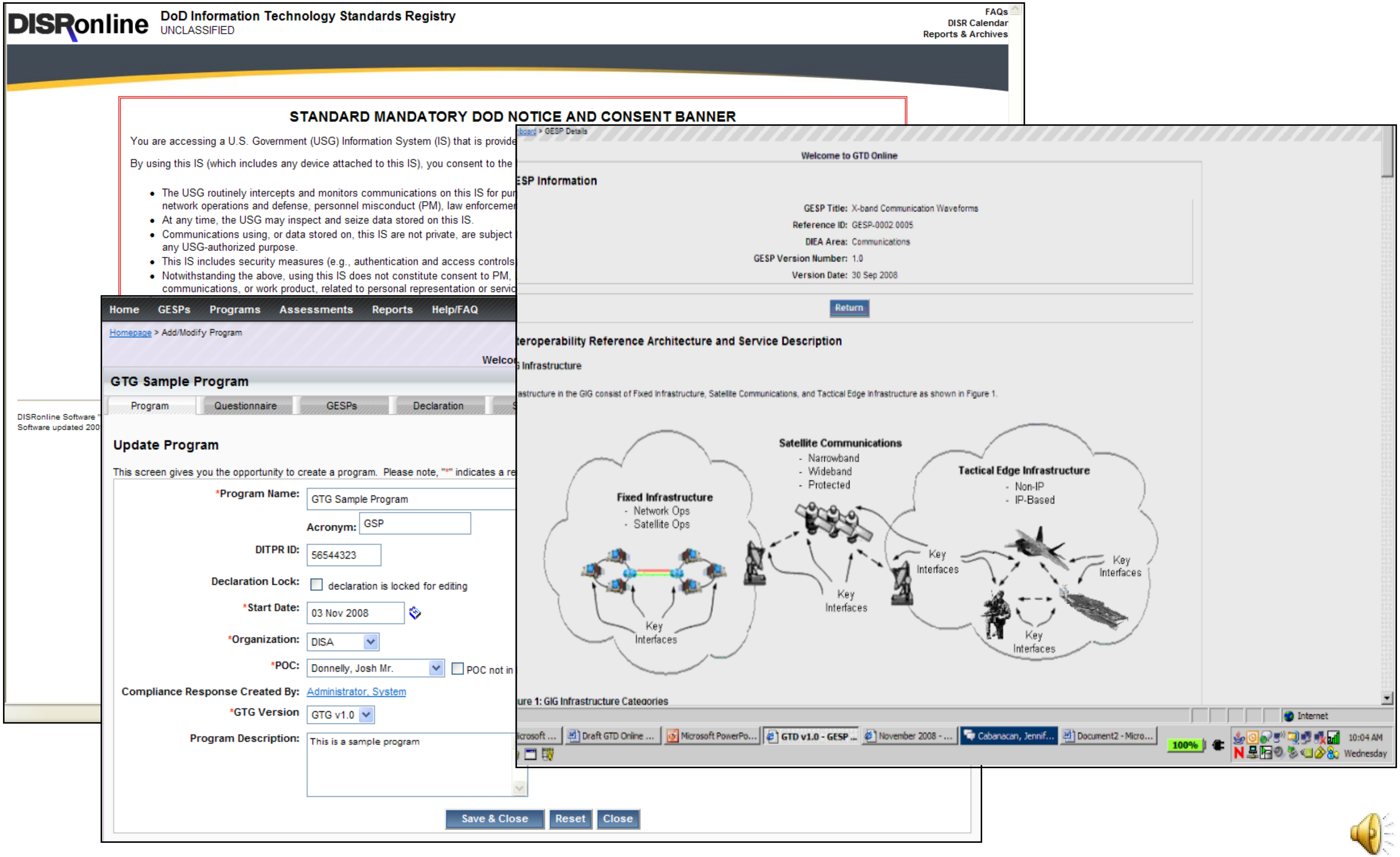

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FAQs
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Reports & Archives

STANDARD MANDATORY DOD NOTICE AND CONSENT BANNER

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- The USG routinely intercepts and monitors communications on this IS for pur network operations and defense, personnel misconduct (PM), law enforcemen
- At any time, the USG may inspect and seize data stored on this IS.
- Communications using, or data stored on, this IS are not private, are subject any USG-authorized purpose.
- This IS includes security measures (e.g., authentication and access controls
- Notwithstanding the above, using this IS does not constitute consent to PM, communications, or work product, related to personal representation or servic

DISRonline Software
Software updated 200

Home GESPs Programs Assessments Reports Help/FAQ

Homepage > Add/Modify Program

Welco

GTG Sample Program

Program | Questionnaire | GESPs | Declaration

Update Program

This screen gives you the opportunity to create a program. Please note, "*" indicates a re

*Program Name:	GTG Sample Program
Acronym:	GSP
DITPR ID:	56544323
Declaration Lock:	□ declaration is locked for editing
*Start Date:	03 Nov 2008
*Organization:	DISA
*POC:	Donnelly, Josh Mr. □ POC not in
Compliance Response Created By:	Administrator, System
*GTG Version	GTG v1.0
Program Description:	This is a sample program

Save & Close | Reset | Close

board > GESP Details

Welcome to GTD Online

ESP Information

GESP Title:	X-band Communication Waveforms
Reference ID:	GESP-0002.0005
DIEA Area:	Communications
GESP Version Number:	1.0
Version Date:	30 Sep 2008

Return

teroperability Reference Architecture and Service Description

Infrastructure

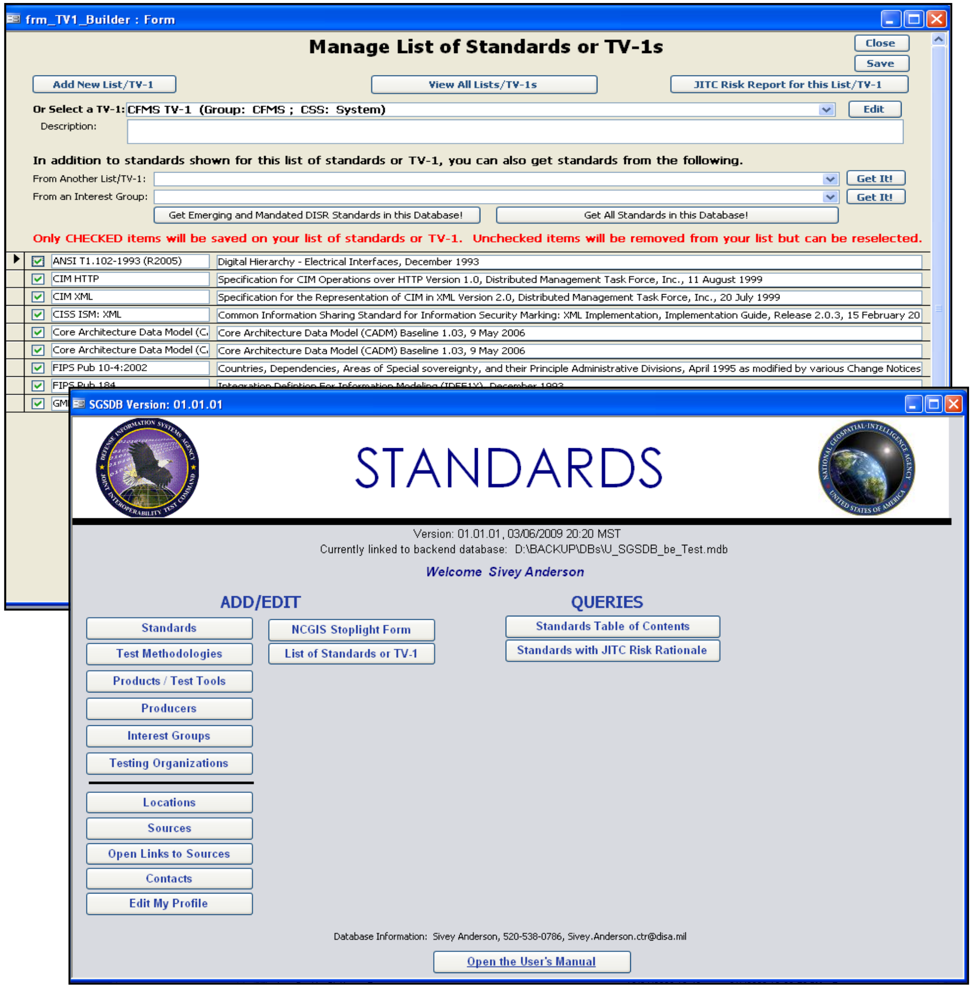
astructure in the GIG consist of Fixed Infrastructure, Satellite Communications, and Tactical Edge Infrastructure as shown in Figure 1.

ure 1: GIG Infrastructure Categories

GIG Technical Guidance

Standards Conformance

- **Requirements Analysis**
  - **Execute risk analysis on standards identified in system TV-1 using JITC Risk Assessment Database (J-RAD)**
  - **Determine standards that will be tested and appropriate test environments/methodologies**
- **Test Planning and Execution**
  - **Leverage commercial and government test results, as appropriate**



frm_TV1_Builder : Form

Manage List of Standards or TV-1s

Or Select a TV-1: CFMS TV-1 (Group: CFMS ; CSS: System)

Description:

In addition to standards shown for this list of standards or TV-1, you can also get standards from the following.

From Another List/TV-1:

From an Interest Group:

Only CHECKED items will be saved on your list of standards or TV-1. Unchecked items will be removed from your list but can be reselected.

☑	ANSI T1.102-1993 (R2005)	Digital Hierarchy - Electrical Interfaces, December 1993
☑	CIM HTTP	Specification for CIM Operations over HTTP Version 1.0, Distributed Management Task Force, Inc., 11 August 1999
☑	CIM XML	Specification for the Representation of CIM in XML Version 2.0, Distributed Management Task Force, Inc., 20 July 1999
☑	CISS ISM: XML	Common Information Sharing Standard for Information Security Marking: XML Implementation, Implementation Guide, Release 2.0.3, 15 February 20
☑	Core Architecture Data Model (C.	Core Architecture Data Model (CADM) Baseline 1.03, 9 May 2006
☑	Core Architecture Data Model (C.	Core Architecture Data Model (CADM) Baseline 1.03, 9 May 2006
☑	FIPS Pub 10-4:2002	Countries, Dependencies, Areas of Special sovereignty, and their Principle Administrative Divisions, April 1995 as modified by various Change Notices
☑	FIPS Pub 184	Integration Defintion For Information Modeling (IDEF1X), December 1993
☑	GM	

SGSDB Version: 01.01.01

STANDARDS

Version: 01.01.01, 03/06/2009 20:20 MST
Currently linked to backend database: D:\BACKUP\DBs\U_SGSDB_be_Test.mdb

Welcome Sivey Anderson

ADD/EDIT

QUERIES

Database Information: Sivey Anderson, 520-538-0786, Sivey.Anderson.ctr@disa.mil

Note: GIG Enterprise Service Profiles are not yet mandated.

GIG Technical Guidance

Reporting

- **Threshold: No critical standards conformance-based deficiencies were identified in DT and OT by a combination of government and/or commercial verifications or JITC standards testing or conformance certifications that included all high-risk standards in the TV-1 that support a critical information exchange.**

- **Objective: No critical standards conformance-based deficiencies were identified in DT and OT by a combination of government and/or commercial verifications or JITC conformance certification for any high-risk standards in the TV-1.**

Information Assurance

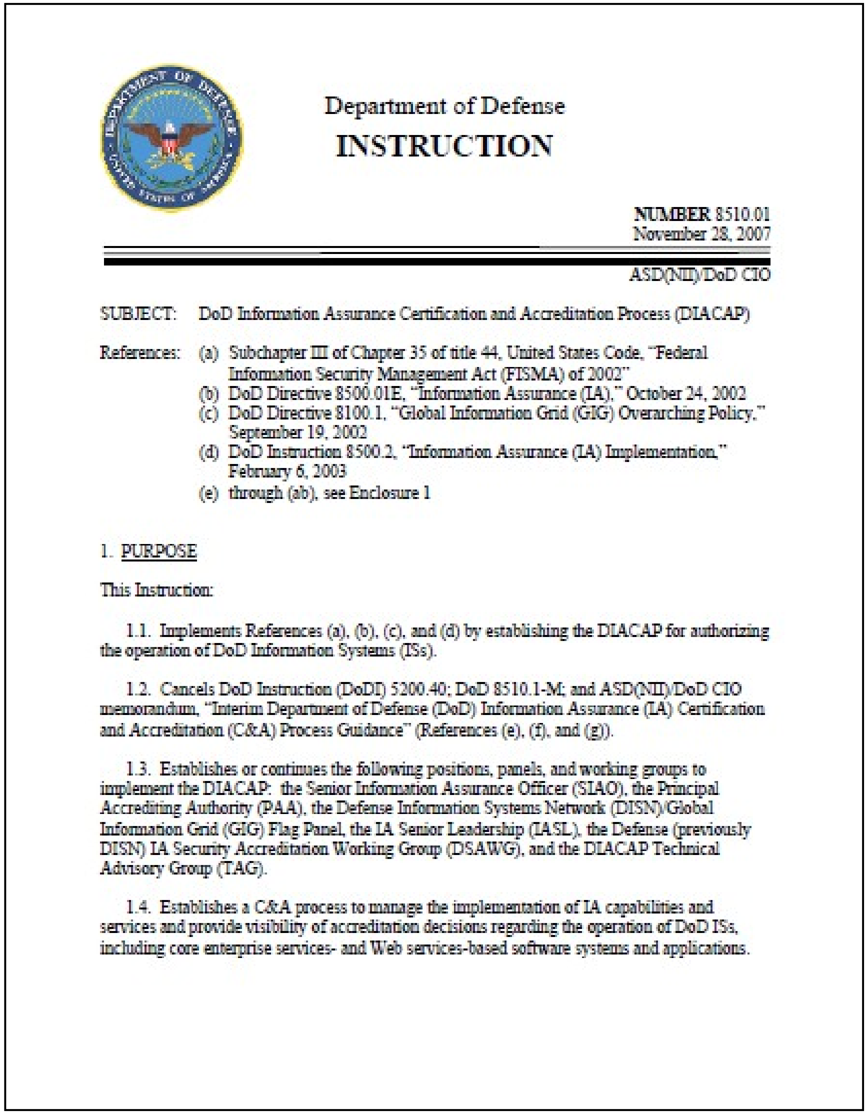
NR-KPP Statement (Threshold)

…to include Information assurance requirements including availability, integrity, authentication, confidentiality, and non-repudiation, and issuance of an Interim Authorization to Operate (IATO) or Authorization To Operate (ATO) by the Designated Accrediting Authority (DAA)”

CJCSI 6212.01E

Information Assurance

Requirements Sources



Department of Defense

INSTRUCTION

NUMBER 8510.01
November 28, 2007

ASD(NII)/DoD CIO

SUBJECT: DoD Information Assurance Certification and Accreditation Process (DIACAP)

References: (a) Subchapter III of Chapter 35 of title 44, United States Code, "Federal Information Security Management Act (FISMA) of 2002"
(b) DoD Directive 8500.01E, "Information Assurance (IA)," October 24, 2002
(c) DoD Directive 8100.1, "Global Information Grid (GIG) Overarching Policy," September 19, 2002
(d) DoD Instruction 8500.2, "Information Assurance (IA) Implementation," February 6, 2003
(e) through (ab), see Enclosure 1

1. PURPOSE

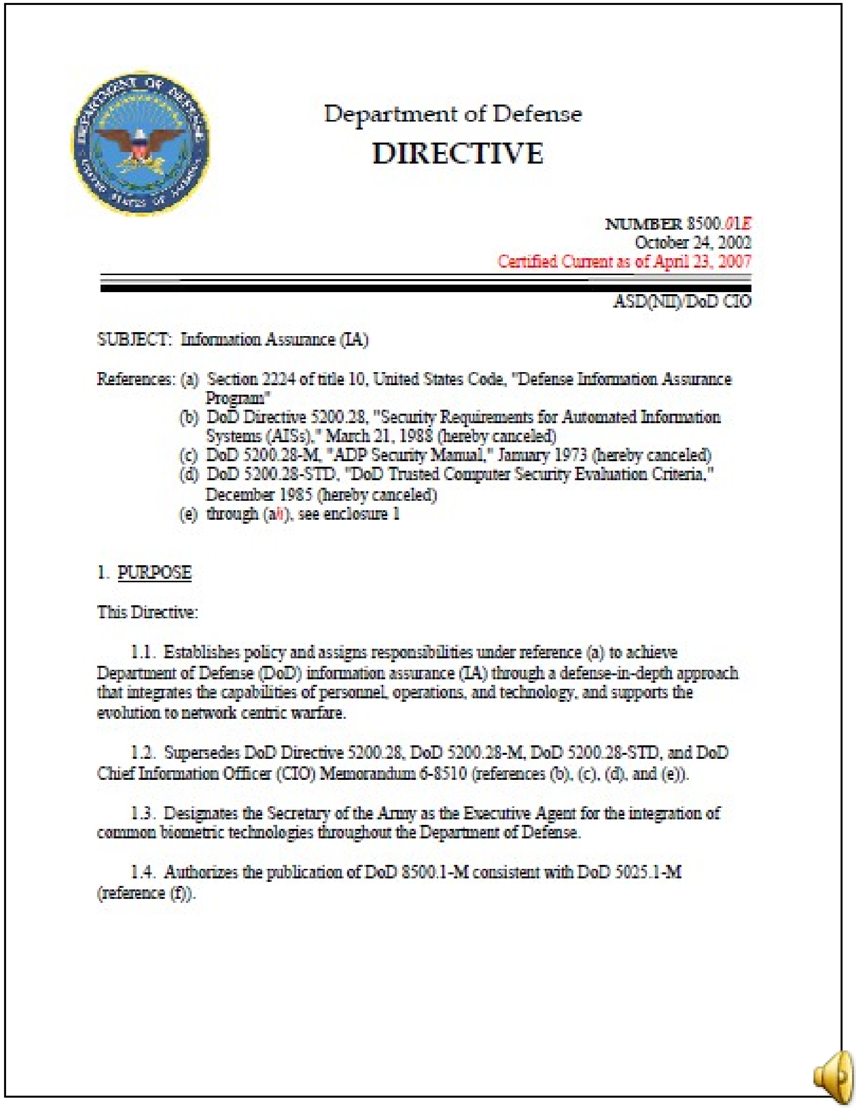
This Instruction:

1.1. Implements References (a), (b), (c), and (d) by establishing the DIACAP for authorizing the operation of DoD Information Systems (ISs).

1.2. Cancels DoD Instruction (DoDI) 5200.40; DoD 8510.1-M; and ASD(NII)/DoD CIO memorandum, "Interim Department of Defense (DoD) Information Assurance (IA) Certification and Accreditation (C&A) Process Guidance" (References (e), (f), and (g)).

1.3. Establishes or continues the following positions, panels, and working groups to implement the DIACAP: the Senior Information Assurance Officer (SIAO), the Principal Accrediting Authority (PAA), the Defense Information Systems Network (DISN)/Global Information Grid (GIG) Flag Panel, the IA Senior Leadership (IASL), the Defense (previously DISN) IA Security Accreditation Working Group (DSAWG), and the DIACAP Technical Advisory Group (TAG).

1.4. Establishes a C&A process to manage the implementation of IA capabilities and services and provide visibility of accreditation decisions regarding the operation of DoD ISs, including core enterprise services- and Web services-based software systems and applications.



Department of Defense

DIRECTIVE

NUMBER 8500.*01E*
October 24, 2002
Certified Current as of April 23, 2007

ASD(NII)/DoD CIO

SUBJECT: Information Assurance (IA)

References: (a) Section 2224 of title 10, United States Code, "Defense Information Assurance Program"
(b) DoD Directive 5200.28, "Security Requirements for Automated Information Systems (AISs)," March 21, 1988 (hereby canceled)
(c) DoD 5200.28-M, "ADP Security Manual," January 1973 (hereby canceled)
(d) DoD 5200.28-STD, "DoD Trusted Computer Security Evaluation Criteria," December 1985 (hereby canceled)
(e) through (ai), see enclosure 1

1. PURPOSE

This Directive:

1.1. Establishes policy and assigns responsibilities under reference (a) to achieve Department of Defense (DoD) information assurance (IA) through a defense-in-depth approach that integrates the capabilities of personnel, operations, and technology, and supports the evolution to network centric warfare.

1.2. Supersedes DoD Directive 5200.28, DoD 5200.28-M, DoD 5200.28-STD, and DoD Chief Information Officer (CIO) Memorandum 6-8510 (references (b), (c), (d), and (e)).

1.3. Designates the Secretary of the Army as the Executive Agent for the integration of common biometric technologies throughout the Department of Defense.

1.4. Authorizes the publication of DoD 8500.1-M consistent with DoD 5025.1-M (reference (f)).

Information Assurance

Evaluation Procedures

- **Requirements Analysis***
  - **Evaluate the status of the Certification and Accreditation (C&A) process (DIACAP, NISCAP, ICD 503)**
  - **All systems are required to receive an IATO/ATO (threshold) or ATO (objective) by the Designated Accrediting Authority (DAA)**
  - **All systems are required to complete interoperability and operational testing in the approved IA configuration as specified in the C&A package**
- **Test Planning and Execution**
  - **Ensure the system is operating in the approved IA configuration for interoperability and operational testing**
  - **Verify IATO/ATO**
  - **Execute required additional IA testing**

**** Not all systems are required to comply with DoDI 8510.01***

Information Assurance

Reporting

- **Threshold: The Designated Accrediting Authority (DAA) has issued an Interim Authorization to Operate (IATO) or an Authorization to Operate (ATO) for the system**
- **Objective: The DAA has issued an ATO for the system**

Supportability

NR-KPP Statement (Threshold)

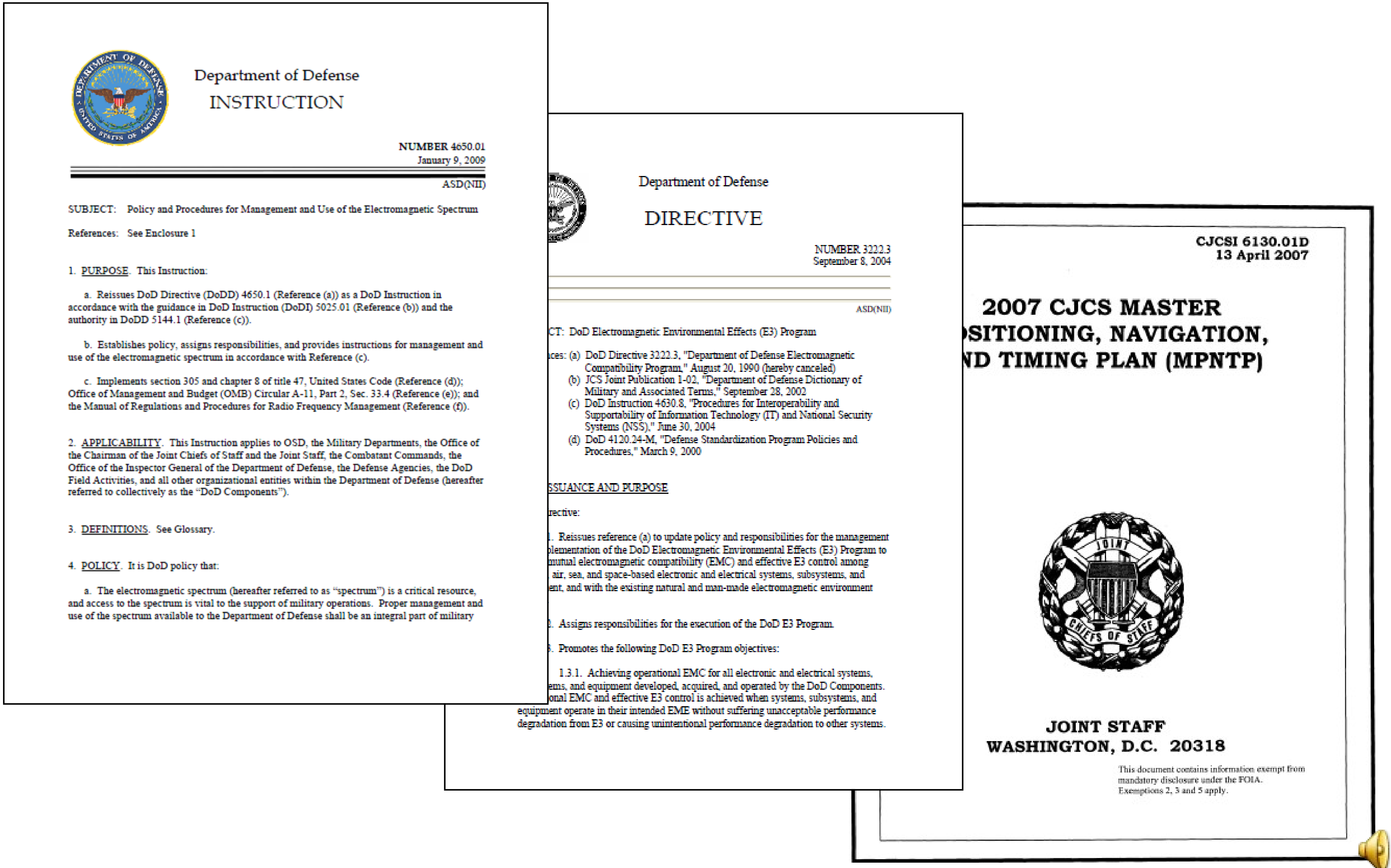
…Supportability requirements to include SAASM, Spectrum and JTRS requirements”

CJCSI 6212.01E

A Combat Support Agency

Supportability

Requirements Source



Department of Defense
INSTRUCTION

NUMBER 4650.01
January 9, 2009

ASD(NII)

SUBJECT: Policy and Procedures for Management and Use of the Electromagnetic Spectrum

References: See Enclosure 1

1. PURPOSE. This Instruction:

a. Reissues DoD Directive (DoDD) 4650.1 (Reference (a)) as a DoD Instruction in accordance with the guidance in DoD Instruction (DoDI) 5025.01 (Reference (b)) and the authority in DoDD 5144.1 (Reference (c)).

b. Establishes policy, assigns responsibilities, and provides instructions for management and use of the electromagnetic spectrum in accordance with Reference (c).

c. Implements section 305 and chapter 8 of title 47, United States Code (Reference (d)); Office of Management and Budget (OMB) Circular A-11, Part 2, Sec. 33.4 (Reference (e)); and the Manual of Regulations and Procedures for Radio Frequency Management (Reference (f)).

2. APPLICABILITY. This Instruction applies to OSD, the Military Departments, the Office of the Chairman of the Joint Chiefs of Staff and the Joint Staff, the Combatant Commands, the Office of the Inspector General of the Department of Defense, the Defense Agencies, the DoD Field Activities, and all other organizational entities within the Department of Defense (hereafter referred to collectively as the "DoD Components").

3. DEFINITIONS. See Glossary.

4. POLICY. It is DoD policy that:

a. The electromagnetic spectrum (hereafter referred to as "spectrum") is a critical resource, and access to the spectrum is vital to the support of military operations. Proper management and use of the spectrum available to the Department of Defense shall be an integral part of military

Department of Defense
DIRECTIVE

NUMBER 3222.3
September 8, 2004

ASD(NII)

CT: DoD Electromagnetic Environmental Effects (E3) Program

ces: (a) DoD Directive 3222.3, "Department of Defense Electromagnetic Compatibility Program," August 20, 1990 (hereby canceled)
(b) JCS Joint Publication 1-02, "Department of Defense Dictionary of Military and Associated Terms," September 28, 2002
(c) DoD Instruction 4630.8, "Procedures for Interoperability and Supportability of Information Technology (IT) and National Security Systems (NSS)," June 30, 2004
(d) DoD 4120.24-M, "Defense Standardization Program Policies and Procedures," March 9, 2000

SSUANCE AND PURPOSE

rective:

1. Reissues reference (a) to update policy and responsibilities for the management plementation of the DoD Electromagnetic Environmental Effects (E3) Program to mutual electromagnetic compatibility (EMC) and effective E3 control among , air, sea, and space-based electronic and electrical systems, subsystems, and ent, and with the existing natural and man-made electromagnetic environment

2. Assigns responsibilities for the execution of the DoD E3 Program.

3. Promotes the following DoD E3 Program objectives:

1.3.1. Achieving operational EMC for all electronic and electrical systems, ems, and equipment developed, acquired, and operated by the DoD Components. onal EMC and effective E3 control is achieved when systems, subsystems, and equipment operate in their intended EME without suffering unacceptable performance degradation from E3 or causing unintentional performance degradation to other systems.

CJCSI 6130.01D
13 April 2007

2007 CJCS MASTER
SITIONING, NAVIGATION,
ND TIMING PLAN (MPNTP)

JOINT STAFF
WASHINGTON, D.C. 20318

This document contains information exempt from mandatory disclosure under the FOIA. Exemptions 2, 3 and 5 apply.

Supportability

Evaluation Procedures

- **Spectrum Supportability**
  - **Verify the system has an approved (Stage 4) DD Form 1494 (for any spectrum dependent system) (DoDI 5000.02)**
  - **Verify completion of applicable requirements of DODD 3222.2, "DOD Electromagnetic Environmental Effects (E3)"**
- **Selective Availability Anti-Spoofing Module (SAASM)**
  - **Verify any GPS receivers procured are SAASM or MGUE compliant (CJCSI 6130.01D)**
- **Joint Tactical Radio System (JTRS)**
  - **Verify a JTRS solution or waiver for any radio solution operating within the 2MHz to 2 GHz range***

***Reference: (ASD(NII)/DOD CIO memorandum, 23 May 2005, "Temporary Suspension of the Joint Tactical Radio Systems (JTRS) Waiver Process" and ASD(NII)/DOD CIO memorandum, 12 January 2007 "Reinstatement of the Joint Tactical Radio, (JTRS) Waiver Process for Handheld Radio Procurements")**

Supportability

Reporting

- **Threshold = Objective:**
  - **Spectrum Supportability**
    - **Approved Stage 4 DD Form 1494**
    - **Verified E3 compliance**
  - **SAASM Compliance: If the system implements GPS, the receiver must be SAASM compliant or the program has a waiver from ASD(NII)**
  - **JTRS Compliance: If the system has a requirement for radio-based communications in the 2 MHz to 2 GHz range, the system must implement a JTRS solution or have authorization from ASD(NII)/DoD CIO for the specific procurement**

Interoperability Certification Products

Certification	Description	System can be fielded (Y/N)?
Standards Conformance Certification	System is certified for conformance to a standard/standards profile	No
Joint Interoperability Test Certification	Full system certification. System meets at least ***all critical*** interoperability requirements	Yes
Limited Joint Interoperability Test Certification	System meets ***subset*** of critical interoperability requirements	Yes, with ICTO
Interim Joint Interoperability Test Certification	A capability module has adequately demonstrated interoperability for at least ***all critical*** threshold requirements identified for the increment	Yes
Special Interoperability Test Certification	Certification is based on other J-6 approved requirements other than the NR-KPP, e.g., use of UCR for voice switches	Yes
Non-Certification	Critical operational impacts expected Provides a warning to the warfighter	No
	PM would like to determine	

References & Resources

- NR-KPP Helpdesk: NR-KPP_Helpdesk@disa.mil
- URLs for (Interoperability and Supportability) Internet resources are located on the CJSCI 6212 Resource Page: https://www.intelink.gov/wiki/Portal:CJCSI_6212_Resource_Page
- JITC NR-KPP Guidebook: https://www.intelink.gov/sites/jitc/nrkpp/guidebook/Wiki%20Pages/Home.aspx
- GIG Technical Guidance Federation: https://216.181.4.90/gtg/login.do;jsessionid=18B78A357186110C75589197B31276A3?jsessionid=1268330917971&redirectUrl=
- JITC Data & Services 101 Tutorial: https://connect.dco.dod.mil/p51771709/?session=breezuffahb84y7v7qz7v
- DISR Online Account Request: https://disronline.disa.mil/a/public/consent
- DoD Metadata Registry: https://metadata.dod.mil/mdr/homepage.htm
- JITC NR-KPP Helpdesk Wiki: https://www.intelink.gov/wiki/NR-KPP_Helpdesk

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Contact Information

- **Hotline**
  - 24/7 C4I Technical Support
  - 1-800-538-JITC (5482)
  - hotline@disa.mil
  - http://jitc.fhu.disa.mil/support.html
- **Joint Interoperability Tool (JIT)**
  - http://jit.fhu.disa.mil
  - Lessons Learned reports
  - NATO Interface Guide
- **System Tracking Program (STP)**
  - https://stp.fhu.disa.mil
  - Test events
  - Test plans and reports
  - Certification results

General Testing Support
(301) 744-2681 or http://jitc.fhu.disa.mil/gtsform.html

Questions?

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Chief, Engineering & Policy Branch
Joint Interoperability Test Command

July 14, 2010

DEFENSE INFORMATION SYSTEMS AGENCY